

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 9/25/2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.
2. No copy of JP 05220849 has been provided.
3. The IDS filled 9/25/2006 contains an error. There is no document 4293941 by Hans Baumgartner. Document 4293942 by a Hans Baumgartner has been considered and is cited on the PTO-892.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
5. Claims 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baumgartner (US 4293942) in view of Church (US 581535.)
6. With respect to claim 12 Baumgartner discloses a device for fixing, comprising: at least one seat provided to receive an insert (42 figure 4; 11 or 12 figure 1; 22 or 21 figure 2), wherein a portion of a first element comprising the seat (41 and 422 figure 4)

Art Unit: 2833

comprises a shape memory (abstract) alloy adapted to undergo a reversible transformation from an austenitic crystallographic phase into a martensitic crystallographic phase, wherein the seat is bounded by jaws (41 and 422 figure 4) configured to re-close in a direction of the seat, wherein a first jaw (41 figure 4) is fixed and a second jaw (422) is movable between a first unclamped position in which the insert can be introduced into the seat and be shifted therein, and a second clamped position in which the jaws clamp the insert fixedly and immobilize the insert in the seat and wherein the first jaw has two flat clamping surfaces in alignment and wherein the second jaw has a clamping surface disposed essentially facing the two clamping surfaces of the first jaw (abstract and figures 1-4).

Baumgartner does not disclose wherein the insert portion and the jaw portion belong to a pallet and an escapement anchor.

Church teaches a pallet and escapement anchor.

At the time of the invention it would have been obvious to one skilled in the art to apply Baumgartner's method of connecting horologic mechanisms to Church's pallet/escapement mechanism. The reason for doing so would have been to form Church's escapement mechanism utilizing the benefits of Baumgartner's fitting method, namely simplicity of design and tightness of connection (abstract and column 1 lines 25-31.)

7. With respect to claim 13 Baumgartner and Church teach the fixing device according to claim 12, wherein the portion of the anchor comprising said seat does not

clamp the pallet substantially when the portion of the anchor is in the martensitic crystallographic phase so that the pallet can be shifted in said seat and wherein the portion of the anchor comprising said seat clamps the pallet fixedly when the portion of the anchor is in the austenitic crystallographic phase while the portion of the anchor is at ambient temperature (abstract; and column 2 lines 28-52).

8. With respect to claim 14 Baumgartner and Church teach the fixing device according to claim 12, wherein the portion of the anchor comprising said seat does not clamp the pallet substantially when the portion of the anchor is in the austenitic crystallographic phase so that the pallet can be shifted in said seat and wherein the portion of the anchor comprising said seat clamps the pallet fixedly when the portion of the anchor is in the martensitic crystallographic phase while the portion of the anchor is at ambient temperature (abstract; and column 2 lines 28-52).

9. With respect to claim 15 Baumgartner and Church the fixing device according to claim 12, wherein said shape memory alloy is a nickel and titanium alloy (claim 5).

10. Claims 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baumgartner (US 4293942) in view of Simon-Vermot (US 3738101).

11. With respect to claim 12 Baumgartner discloses a device for fixing, comprising: at least one seat provided to receive an insert (42 figure 4; 11 or 12 figure 1; 22 or 21 figure 2), wherein a portion of a first element comprising the seat (41 and 422 figure 4)

comprises a shape memory (abstract) alloy adapted to undergo a reversible transformation from an austenitic crystallographic phase into a martensitic crystallographic phase, wherein the seat is bounded by jaws (41 and 422 figure 4) configured to re-close in a direction of the seat, wherein a first jaw (41 figure 4) is fixed and a second jaw (422) is movable between a first unclamped position in which the insert can be introduced into the seat and be shifted therein, and a second clamped position in which the jaws clamp the insert fixedly and immobilize the insert in the seat and wherein the first jaw has two flat clamping surfaces in alignment and wherein the second jaw has a clamping surface disposed essentially facing the two clamping surfaces of the first jaw (abstract and figures 1-4).

Baumgartner does not disclose wherein the insert portion and the jaw portion belong to a pallet and an escapement anchor.

Simon-Vermot teaches a pallet and escapement anchor.

At the time of the invention it would have been obvious to one skilled in the art to apply Baumgartner's method of connecting horologic mechanisms to Simon-Vermot's pallet/escapement mechanism. The reason for doing so would have been provide an tighter and stronger attachment, as taught by Baumgartner, between the pallet and the escapement anchor.

12. With respect to claim 13 Baumgartner and Simon-Vermot teach the fixing device according to claim 12, wherein the portion of the anchor comprising said seat does not clamp the pallet substantially when the portion of the anchor is in the martensitic

crystallographic phase so that the pallet can be shifted in said seat and wherein the portion of the anchor comprising said seat clamps the pallet fixedly when the portion of the anchor is in the austenitic crystallographic phase while the portion of the anchor is at ambient temperature (abstract; and column 2 lines 28-52).

13. With respect to claim 14 Baumgartner and Simon-Vermot teach the fixing device according to claim 12, wherein the portion of the anchor comprising said seat does not clamp the pallet substantially when the portion of the anchor is in the austenitic crystallographic phase so that the pallet can be shifted in said seat and wherein the portion of the anchor comprising said seat clamps the pallet fixedly when the portion of the anchor is in the martensitic crystallographic phase while the portion of the anchor is at ambient temperature (abstract; and column 2 lines 28-52).

14. With respect to claim 15 Baumgartner and Simon-Vermot the fixing device according to claim 12, wherein said shape memory alloy is a nickel and titanium alloy (claim 5).

15. With respect to claim 16 Baumgartner and Simon-Vermot the fixing device according to claim 12.

Baumgartner does not teach a spot of adhesive extending on to the pallet and the anchor in order to stabilize fixation of the pallet on the anchor.

Simon-Vermot teaches attaching the pallet utilizing an adhesive (column 2 lines 41-57.)

Art Unit: 2833

At the time of the invention it would have been obvious to one skilled in the art to attach Simon-Vermot's pallet and escapement by means of both adhesive and Baumgartner's memory forming. The reason for doing so would have been to provide a tight and strong connection between the pallet and escapement as taught by Baumgartner and Simon-Vermot. A reason for doing so would have been to provide a redundant attachment means so as to increase the strength of the connection between the parts.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN KAYES whose telephone number is (571) 272-8931. The examiner can normally be reached on 11:00am to 9:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tulsidas Patel can be reached on (571) 272-2098. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2833

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Felix O. Figueroa/
Primary Examiner, Art Unit 2833

SK
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